



DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

[RTID 0648-XB813]

Taking and Importing Marine Mammals; Taking Marine Mammals Incidental to Geophysical Surveys Related to Oil and Gas Activities in the Gulf of Mexico

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notice of issuance of Letter of Authorization.

SUMMARY: In accordance with the Marine Mammal Protection Act (MMPA), as amended, its implementing regulations, and NMFS' MMPA Regulations for Taking Marine Mammals Incidental to Geophysical Surveys Related to Oil and Gas Activities in the Gulf of Mexico, notification is hereby given that a Letter of Authorization (LOA) has been issued to BHP Billiton Petroleum (Deepwater) Inc. for the take of marine mammals incidental to geophysical survey activity in the Gulf of Mexico.

DATES: The LOA is effective from March 7, 2022 through September 7, 2022.

ADDRESSES: The LOA, LOA request, and supporting documentation are available online at: www.fisheries.noaa.gov/action/incidental-take-authorization-oil-and-gas-industry-geophysical-survey-activity-gulf-mexico. In case of problems accessing these documents, please call the contact listed below (see **FOR FURTHER INFORMATION CONTACT**).

FOR FURTHER INFORMATION CONTACT: Kim Corcoran, Office of Protected Resources, NMFS, (301) 427-8401.

SUPPLEMENTARY INFORMATION:

Background

Sections 101(a)(5)(A) and (D) of the MMPA (16 U.S.C. 1361 *et seq.*) direct the Secretary of Commerce to allow, upon request, the incidental, but not intentional, taking of small numbers of marine mammals by U.S. citizens who engage in a specified activity (other than commercial fishing) within a specified geographical region if certain findings are made and either regulations are issued or, if the taking is limited to harassment, a notice of a proposed authorization is provided to the public for review.

An authorization for incidental takings shall be granted if NMFS finds that the taking will have a negligible impact on the species or stock(s), will not have an unmitigable adverse impact on the availability of the species or stock(s) for subsistence uses (where relevant), and if the permissible methods of taking and requirements pertaining to the mitigation, monitoring and reporting of such takings are set forth. NMFS has defined “negligible impact” in 50 CFR 216.103 as an impact resulting from the specified activity that cannot be reasonably expected to, and is not reasonably likely to, adversely affect the species or stock through effects on annual rates of recruitment or survival.

Except with respect to certain activities not pertinent here, the MMPA defines “harassment” as: any act of pursuit, torment, or annoyance which (i) has the potential to injure a marine mammal or marine mammal stock in the wild (Level A harassment); or (ii) has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering (Level B harassment).

On January 19, 2021, we issued a final rule with regulations to govern the unintentional taking of marine mammals incidental to geophysical survey activities conducted by oil and gas industry operators, and those persons authorized to conduct activities on their behalf (collectively “industry operators”), in Federal waters of the U.S. Gulf of Mexico (GOM) over the course of 5 years (86 FR 5322; January 19, 2021). The

rule was based on our findings that the total taking from the specified activities over the 5-year period will have a negligible impact on the affected species or stock(s) of marine mammals and will not have an unmitigable adverse impact on the availability of those species or stocks for subsistence uses. The rule became effective on April 19, 2021.

Our regulations at 50 CFR 217.180 *et seq.* allow for the issuance of LOAs to industry operators for the incidental take of marine mammals during geophysical survey activities and prescribe the permissible methods of taking and other means of effecting the least practicable adverse impact on marine mammal species or stocks and their habitat (often referred to as mitigation), as well as requirements pertaining to the monitoring and reporting of such taking. Under 50 CFR 217.186(e), issuance of an LOA shall be based on a determination that the level of taking will be consistent with the findings made for the total taking allowable under these regulations and a determination that the amount of take authorized under the LOA is of no more than small numbers.

Summary of Request and Analysis

BHP Billiton Petroleum (Deepwater) Inc. (BHP) plans to conduct a zero offset vertical seismic profile (VSP) survey and borehole seismic survey within the Green Canyon Block 124, Well number 002. See attachment 5 of BHP's application for a map. BHP plans to use a 6-element, 2,400 cubic inch (in³) airgun array. Please see BHP's application for additional detail.

Consistent with the preamble to the final rule, the survey effort proposed by BHP in its LOA request was used to develop LOA-specific take estimates based on the acoustic exposure modeling results described in the preamble (86 FR 5322, 5398; January 19, 2021). In order to generate the appropriate take number for authorization, the following information was considered: (1) survey type; (2) location (by modeling zone¹);

¹ For purposes of acoustic exposure modeling, the GOM was divided into seven zones. Zone 1 is not included in the geographic scope of the rule.

(3) number of days; and (4) season.² The acoustic exposure modeling performed in support of the rule provides 24-hour exposure estimates for each species, specific to each modeled survey type in each zone and season.

No VSP surveys were included in the modeled survey types, and use of existing proxies (*i.e.*, 2D, 3D NAZ, 3D WAZ, Coil) is generally conservative for use in evaluation of these survey types. Summary descriptions of these modeled survey geometries are available in the preamble to the proposed rule (83 FR 29212, 29220; June 22, 2018). Coil was selected as the best available proxy survey type for BHP's survey because the spatial coverage of the planned survey is most similar to the coil survey pattern. For the planned zero offset VSP survey, the source will be hung off of the drilling rig with a crane at a depth of 10 feet (3.05 meters) underwater, with seismic receivers (*i.e.*, geophones) being deployed within the borehole on wireline at specified depth intervals. The offset source will be deployed from the vessel in a fixed position and will alternate firing with the zero offset source. Both sources will be stationary and thus cover no area. The coil survey pattern was assumed to cover approximately 144 kilometers squared (km²) per day (compared with approximately 795 km², 199 km², and 845 km² per day for the 2D, 3D NAZ, and 3D WAZ survey patterns, respectively). Among the different parameters of the modeled survey patterns (*e.g.*, area covered, line spacing, number of sources, shot interval, total simulated pulses), NMFS considers area covered per day to be most influential on daily modeled exposures exceeding Level B harassment criteria. BHP's planned survey will utilize a stationary source and, therefore, the coil proxy is most representative of the effort planned by BHP in terms of predicted Level B harassment exposures.

² For purposes of acoustic exposure modeling, seasons include Winter (December-March) and Summer (April-November).

In addition, all available acoustic exposure modeling results assume use of a 72-element, 8,000 in³ array. Thus, estimated take numbers for this LOA are considered conservative due to the differences in both the airgun array (6 elements, 2,400 in³), and in daily survey area planned by BHP (as mentioned above), as compared to those modeled for the rule.

The survey is planned to occur for 2 days in Zone 5. The survey may occur in either season. Therefore, the take estimates for each species are based on the season that has the greater value for the species (*i.e.*, winter or summer).

In this case, use of exposure modeling produces results that are substantially smaller than average GOM group sizes for multiple species³ (*i.e.*, estimated exposure values are less than 10 percent of assumed average group size for the majority of species) (Maze-Foley and Mullin, 2006). NMFS' typical practice in such a situation is to increase exposure estimates to the assumed average group size for a species in order to ensure that, if the species is encountered, exposures will not exceed the authorized take number. However, other relevant considerations here lead to a determination that increasing the estimated exposures to average group sizes would likely lead to an overestimate of actual potential take. In this circumstance, the very short survey duration and relatively small Level B harassment isopleths produced through use of the VSP and borehole survey means that it is unlikely that certain species would be encountered at all, much less that the encounter would result in exposure of a greater number of individuals than is estimated through use of the exposure modeling results. As a result, NMFS has not increased the estimated exposure values to assumed group sizes in authorizing take in this case.

³ Species include: Short-finned pilot whale, sperm whale, Clymene dolphin, melon-headed whale, pantropical spotted dolphin, spinner dolphin and striped dolphin.

Based on the results of our analysis, NMFS has determined that the level of taking authorized through the LOA is consistent with the findings made for the total taking allowable under the regulations. See Table 1 in this notice and Table 9 of the rule (86 FR 5322; January 19, 2021).

Small Numbers Determination

Under the GOM rule, NMFS may not authorize incidental take of marine mammals in an LOA if it will exceed “small numbers.” In short, when an acceptable estimate of the individual marine mammals taken is available, if the estimated number of individual animals taken is up to, but not greater than, one-third of the best available abundance estimate, NMFS will determine that the numbers of marine mammals taken of a species or stock are small. For more information please see NMFS’ discussion of the MMPA’s small numbers requirement provided in the final rule (86 FR 5322, 5438; January 19, 2021).

The take numbers for authorization, which are determined as described above, are used by NMFS in making the necessary small numbers determinations, through comparison with the best available abundance estimates (see discussion at 86 FR 5322, 5391; January 19, 2021). For this comparison, NMFS’ approach is to use the maximum theoretical population, determined through review of current stock assessment reports (SAR; www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-stock-assessments) and model-predicted abundance information (<https://seamap.env.duke.edu/models/Duke/GOM/>). For the latter, for taxa where a density surface model could be produced, we use the maximum mean seasonal (*i.e.*, 3-month) abundance prediction for purposes of comparison as a precautionary smoothing of month-to-month fluctuations and in consideration of a corresponding lack of data in the literature regarding seasonal distribution of marine mammals in the GOM. Information supporting the small numbers determinations is provided in Table 1.

Table 1. Take Analysis

Species	Authorized take ¹	Abundance ²	Percent abundance
Rice's whale ³	0	51	n/a
Sperm whale	2	2,207	0.1
<i>Kogia</i> spp.	0 ⁴	4,373	n/a
Beaked whales	32	3,768	0.8
Rough-toothed dolphin	0 ⁴	4,853	n/a
Bottlenose dolphin	3	176,108	0.0
Clymene dolphin	2	11,895	0.0
Atlantic spotted dolphin	1	74,785	0.0
Pantropical spotted dolphin	7	102,361	0.0
Spinner dolphin	2	25,114	0.0
Striped dolphin	1	5,229	0.0
Fraser's dolphin	0 ⁴	1,665	n/a
Risso's dolphin	0 ⁴	3,764	n/a
Melon-headed whale	1	7,003	0.0
Pygmy killer whale	0 ⁴	2,126	n/a
False killer whale	0 ⁴	3,204	n/a
Killer whale	0 ⁴	267	n/a
Short-finned pilot whale	0 ⁴	1,981	n/a

¹Scalar ratios were not applied in this case due to brief survey duration.

²Best abundance estimate. For most taxa, the best abundance estimate for purposes of comparison with take estimates is considered here to be the model-predicted abundance (Roberts *et al.*, 2016). For those taxa where a density surface model predicting abundance by month was produced, the maximum mean seasonal abundance was used. For those taxa where abundance is not predicted by month, only mean annual abundance is available. For the killer whale, the larger estimated SAR abundance estimate is used.

³The final rule refers to the GOM Bryde's whale (*Balaenoptera edeni*). These whales were subsequently described as a new species, Rice's whale (*Balaenoptera ricei*) (Rosel *et al.*, 2021).

⁴Modeled take produced a non-zero number which was rounded down to zero.

Based on the analysis contained herein of BHP's proposed survey activity described in its LOA application and the anticipated take of marine mammals, NMFS finds that small numbers of marine mammals will be taken relative to the affected species or stock sizes and therefore is of no more than small numbers.

Authorization

NMFS has determined that the level of taking for this LOA request is consistent with the findings made for the total taking allowable under the incidental take regulations and that the amount of take authorized under the LOA is of no more than small numbers. Accordingly, we have issued an LOA to BHP authorizing the take of marine mammals incidental to its geophysical survey activity, as described above.

Dated: March 7, 2022.

Kimberly Damon-Randall,

Director, Office of Protected Resources,

National Marine Fisheries Service.

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